

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application. Please amend Claims 1, 18, 34, and 50 and add new claim 69.

1. (Currently Amended) A method for rendering a graphical user interface (GUI), comprising:

providing for the representation of the GUI as a set of objects wherein the objects are organized in a logical hierarchy, wherein the set of objects includes:

one or more booklets wherein anyone of the one or more booklets represents a set of pages linked by a page navigator having a user selectable graphical representation and is capable of containing other booklets; and

a plurality of portlets wherein anyone of the plurality of portlets is a self-contained application implemented on one or more web servers that renders its own GUI and is capable of communicating with another portlet of the plurality of portlets;

associating a theme with a first object in the set of objects;

rendering the first object according to the theme;

rendering any descendants of the first object according to the theme;

wherein any descendants of the first object can override the theme; and

~~wherein one of the set of objects can communicate with another of the set of objects.~~

2. (Original) The method of claim 1 wherein:

one of the set of objects can respond to an event raised by another of the set of objects.

3. (Original) The method of claim 1 wherein:

a control can have an interchangeable persistence mechanism.

4. (Original) The method of claim 1 wherein:

a control can have an interchangeable rendering mechanism.

5. (Original) The method of claim 1, further comprising:

accepting a request.

6. (Original) The method of claim 5 wherein:
the request in a hypertext transfer protocol (HTTP) request.

7. (Original) The method of claim 5 wherein:
the request originates from a Web browser.

8. (Original) The method of claim 1, further comprising:
generating a response.

9. (Original) The method of claim 1 wherein:
an object can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.

10. (Original) The method of claim 1 wherein:
associating the theme with the first object can occur when the first object is rendered.

11. (Original) The method of claim 1 wherein:
the first object inherits the theme from a parent object.

12. (Original) The method of claim 1 wherein:
the theme specifies the appearance and/or functioning of an object in the GUI.

13. (Original) The method of claim 1 wherein:
rendering the first object according to the theme can be accomplished in parallel with rendering of other objects.

14. (Original) The method of claim 1 wherein:

the theme can be specified in whole or in part by a properties file.

15. (Original) The method of claim 14 wherein:

the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.

16. (Original) The method of claim 14 wherein:

the properties file can specify at least one image.

17. (Original) The method of claim 1 wherein:

the GUI is part of a portal on the World Wide Web.

18. (Currently Amended) A method for rendering a graphical user interface (GUI), comprising:

accepting a request;

mapping the request to a set of objects that represent the GUI, and wherein the set of objects are organized in a logical hierarchy, wherein the set of objects includes:

one or more booklets wherein anyone of the one or more booklets represents a set of pages linked by a page navigator having a user selectable graphical representation and is capable of containing other booklets; and

a plurality of portlets wherein anyone of the plurality of portlets is a self-contained application that renders its own GUI and is capable of communicating with another portlet of the plurality of portlets;

generating the logical hierarchy with the set of objects using metadata and tag extensions,
wherein the meta data is created based on one or more definitions in a page description language,
wherein the meta data includes the hierarchy of objects and also information about properties,
events, and model binding that have values set in page descriptions, and wherein the tag
extensions associated with the page description language are mapped into the logical hierarchy
during render lifecycle of the logical hierarchy;

associating a theme with a first object in the set of objects;
rendering the first object according to the theme;
rendering any descendants of the first object according to the theme; and
wherein any descendants of the first object can override the theme objects.

19. (Original) The method of claim 18 wherein:
the request in a hypertext transfer protocol (HTTP) request.
20. (Original) The method of claim 18 wherein:
the request originates from a Web browser.
21. (Original) The method of claim 18, further comprising:
generating a response.
22. (Previously Presented) The method of claim 18 wherein:
one of the set of objects can respond to an event raised by another of the set of objects.
23. (Previously Presented) The method of claim 18 wherein:
a control can have an interchangeable persistence mechanism.
24. (Previously Presented) The method of claim 18 wherein:
a control can have an interchangeable rendering mechanism.
25. (Original) The method of claim 18 wherein:
an object can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.
26. (Original) The method of claim 18 wherein:
associating a theme with the first object can occur when the first object is rendered.

27. (Original) The method of claim 18 wherein:

the first object inherits the theme from a parent object.

28. (Original) The method of claim 18 wherein:

the theme specifies the appearance and/or functioning of an object in the GUI.

29. (Original) The method of claim 18 wherein:

rendering the first object according to the theme can be accomplished in parallel with rendering of other objects.

30. (Original) The method of claim 18 wherein:

the theme can be specified in whole or in part by a properties file.

31. (Original) The method of claim 30 wherein:

the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.

32. (Original) The method of claim 30 wherein:

the properties file can specify at least one image.

33. (Original) The method of claim 18 wherein:

the GUI is part of a portal on the World Wide Web.

34. (Currently Amended) A method for rendering a graphical user interface (GUI), comprising:

providing for the representation of the GUI as a plurality of objects wherein the objects are organized in a logical hierarchy, wherein the set of objects includes:

one or more booklets wherein anyone of the one or more booklets represents a set of pages linked by a page navigator having a user selectable graphical representation and is capable of containing other booklets; and

a plurality of portlets wherein anyone of the plurality of portlets is a self-contained application that renders its own GUI and is capable of communicating with another portlet of the plurality of portlets;

generating the logical hierarchy with the set of objects using metadata and tag extensions,
wherein the meta data is created based on one or more definitions in a page description language,
wherein the meta data includes the hierarchy of objects and also information about properties,
events, and model binding that have values set in page descriptions, and wherein the tag
extensions associated with the page description language are mapped into the logical hierarchy
during render lifecycle of the logical hierarchy;

associating a first theme with a first object in the plurality of objects;

rendering the first object according to the first theme;

associating a second theme with a second object in the plurality of objects;

rendering the second object according to the second theme; and

wherein the second object is a descendant of the first object objects.

35. (Original) The method of claim 34, further comprising:

accepting a request.

36. (Original) The method of claim 35 wherein:

the request in a hypertext transfer protocol (HTTP) request.

37. (Original) The method of claim 35 wherein:

the request originates from a Web browser.

38. (Original) The method of claim 34, further comprising:

generating a response.

39. (Original) The method of claim 1 wherein:
the first object can respond to an event raised by the second object.
40. (Original) The method of claim 1 wherein:
an object can have an interchangeable persistence mechanism.
41. (Original) The method of claim 1 wherein:
an object can have an interchangeable rendering mechanism.
42. (Original) The method of claim 34 wherein:
an object can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.
43. (Original) The method of claim 34 wherein:
the first object inherits the first theme from a parent object.
44. (Original) The method of claim 34 wherein:
the first theme specifies the appearance and/or functioning of the first object in the GUI.
45. (Original) The method of claim 34 wherein:
the rendering of the first object can be accomplished in parallel with the rendering of the second object.
46. (Original) The method of claim 34 wherein:
a theme can be specified in whole or in part by a properties file.
47. (Original) The method of claim 46 wherein:

the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.

48. (Original) The method of claim 46 wherein:

the properties file can specify at least one image.

49. (Original) The method of claim 34 wherein:

the GUI is part of a portal on the World Wide Web.

50. (Currently Amended) A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

provide for the representation of the GUI as a set of objects wherein the objects are organized in a logical hierarchy, wherein the set of objects includes:

one or more booklets wherein anyone of the one or more booklets represents a set of pages linked by a page navigator having a user selectable graphical representation and is capable of containing other booklets; and

a plurality of portlets wherein anyone of the plurality of portlets is a self-contained application that renders its own GUI and is capable of communicating with another portlet of the plurality of portlets;

generate the logical hierarchy with the set of objects using metadata and tag extensions,
wherein the meta data is created based on one or more definitions in a page description language,
wherein the meta data includes the hierarchy of objects and also information about properties,
events, and model binding that have values set in page descriptions, and wherein the tag
extensions associated with the page description language are mapped into the logical hierarchy
during render lifecycle of the logical hierarchy;

associate theme with a first object in the set of objects;

render the first object according to the theme;

render any descendants of the first object according to the theme;

wherein any descendants of the first object can override the theme; and

~~wherein one of the set of objects can communicate with another of the set of objects.~~

51. (Original) The machine readable medium of claim 50 wherein:

one of the set of objects can respond to an event raised by another of the set of objects.

52. (Original) The machine readable medium of claim 50 wherein:

a control can have an interchangeable persistence mechanism.

53. (Original) The machine readable medium of claim 50 wherein:

a control can have an interchangeable rendering mechanism.

54. (Original) The machine readable medium of claim 50, further comprising instructions that when executed cause the system to:

accept a request.

55. (Original) The machine readable medium of claim 54 wherein:

the request is a hypertext transfer protocol (HTTP) request.

56. (Original) The machine readable medium of claim 54 wherein:

the request originates from a Web browser.

57. (Original) The machine readable medium of claim 50, further comprising instructions that when executed cause the system to:

generate a response.

58. (Original) The machine readable medium of claim 50 wherein:

an object can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.

59. (Original) The machine readable medium of claim 50 wherein:
associating the theme with the first object can occur when the first object is rendered.

60. (Original) The machine readable medium of claim 50 wherein:
the first object inherits the theme from a parent object.

61. (Original) The machine readable medium of claim 50 wherein:
the theme specifies the appearance and/or functioning of an object in the GUI.

62. (Original) The machine readable medium of claim 50 wherein:
rendering the first object according to the theme can be accomplished in parallel with
rendering of other objects.

63. (Original) The machine readable medium of claim 50 wherein:
the theme can be specified in whole or in part by a properties file.

64. (Original) The machine readable medium of claim 63 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server
Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible
Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.

65. (Original) The machine readable medium of claim 63 wherein:
the properties file can specify at least one image.

66. (Original) The machine readable medium of claim 50 wherein:
the GUI is part of a portal on the World Wide Web.

67. (Canceled).

68. (Previously Presented) The method of claim 1 wherein:

one of the set of objects is a desktop object and the desktop object contains one or more personalized views.

69. (New) The method of claim 1, further comprising:

generating the logical hierarchy with the set of objects using metadata and tag extensions, wherein the meta data is created based on one or more definitions in a page description language, wherein the meta data includes the hierarchy of objects and also information about properties, events, and model binding that have values set in page descriptions, and wherein the tag extensions associated with the page description language are mapped into the logical hierarchy during render lifecycle of the logical hierarchy.